

Professor Mu Ming POO

Citation

Have you ever had one of those days when your memory seems to be playing tricks on you such as recognizing a tune but being unable to recall its name? One day, the work of Professor Mu Ming Poo may answer such mysteries of the mind.

Based at the University of California, Berkeley since 2000, this distinguished neurobiologist has long been engaged in exploring problems of brain development and learning and memory. Given the plasticity of the brain - meaning its circuitry changes in response to the environment - what kind of signal would drive the circuitry to change? The prize at the end of this formidable venture into the unknown is unraveling the basic mechanisms of how we learn and remember, and enhancing knowledge of brain diseases.

In the 1990s, to assist this quest, Professor Poo defined a breakthrough research method that could systematically chart how neuronal connections are formed while also being able to manipulate chemical and environmental factors to observe how these connections then change.

This achievement and his work over the past four decades have brought him recognition worldwide. He is a member of the US National Academy of Sciences, Academia Sinica, and the American Association for the Advancement of Science. His numerous awards include the Javits Neuroscience Investigator Award of the National Institutes of Health, the Ameritec Prize, and the

People's Republic of China International Science and Technology Cooperation Award. He has also received a Docteur honoris causa from École Normale Supérieure, Paris.

Born in Nanjing in Mainland China and raised in Taiwan, Professor Poo gained a Bachelor of Science degree in Physics from Tsinghua University in Taiwan in 1970 and a PhD in Biophysics from Johns Hopkins University in the United States in 1974, where he moved across to neurobiology. He went on to work at Purdue, University of California at Irvine, Yale, Columbia, and University of California at San Diego before settling at Berkeley at the start of the new millennium.

Professor Poo's experimental contributions to science are only one part of his great legacy. He has been equally significant in training the next generation of neuroscientists. Setting standards way above average, he has sought and drawn the very best graduate students to focus on the challenges of the brain. This is not only the case in the United States. Professor Poo has also played a crucial role in the development of neuroscience in China. Specifically, he has sought to establish a research culture based on critical thinking with a strong emphasis on excellence. As Director of the Institute of Neuroscience of the Chinese Academy of Sciences in Shanghai, his tireless efforts have been immensely successful as the Institute is now firmly on the global map due to the first-rate quality of its research.

Once again this has meant adherence to stringently high standards. It appears to have worked. Where previously China's best science students went overseas and stayed there, now many of them choose to stay in Shanghai, or come home from abroad to work at the Institute.

Tackling the two jobs simultaneously has required inexhaustible energy, which fortunately he seems to possess. He works hard, rarely takes weekends off, demanding more from himself than even the terrific heights he sets for others. His curriculum vitae lists more than 200 published papers.

Every month since 1999, Professor Poo has made the long journey from west to east to spend a week in Shanghai. On the way, he has often visited HKUST, where he has been involved with the University since its earliest days. He sat on the Preparatory Committee when HKUST was first being established, and has continued to keep in touch with developments, helping to shape the direction of the University's life science program into the best in Hong Kong. He has assisted enormously in developing connections with leading researchers in the United States, building ties with the Institute of Neuroscience, and setting up the State Key Lab in Molecular Neuroscience at HKUST.

While his tough-guy reputation in the lab sometimes overshadows the fact he has a good sense of humor, his entertaining conversation soon puts paid to the idea that scientists are boring. Still fired by the passion for science, Professor Poo provides a wonderful example of how fascinating a life of discovery can be even after 40 years of non-stop endeavors at the most elevated levels.

Mr Acting Council Chairman, on behalf of the Council of the Hong Kong University of Science and Technology, I have the high honor of presenting to you, Professor Mu Ming Poo, Paul Licht Distinguished Professor in Biology at the University of California, Berkeley, and Director of the Institute of Neuroscience, Shanghai, the award of Doctor of Science *honoris causa*.